

Department of the Army
Headquarters
Tobyhanna Army Depot
Tobyhanna, PA 18466-5086

TYAD Regulation No. 200-2

Environmental Management
ASBESTOS MANAGEMENT PROGRAM

Applicability. This regulation applies to all organizational elements of Tobyhanna Army Depot and attached tenant activities.

Decentralized Printing. Activities of this installation are authorized to locally reproduce this regulation.

Supplementation. Supplementation of this regulation and establishment of local forms are prohibited unless prior approval is obtained from Commander, Tobyhanna Army Depot (AMSEL-TY-RK-E), 11 Hap Arnold Boulevard, Tobyhanna, PA 18466-5086.

Suggested Improvements. The proponent of this regulation is Tobyhanna Army Depot. Users are invited to send comments to Commander, Tobyhanna Army Depot (AMSEL-TY-RK-E), 11 Hap Arnold Boulevard, Tobyhanna, PA 18466-5086.

Distribution. Tobyhanna Army Depot publications are distributed to all organization elements and tenant activities of the Tobyhanna Army Depot through the Tobyhanna Army Depot Website.

FOR THE COMMANDER:

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* This regulation supersedes Tobyhanna Army Depot Regulation 200-2, dated 21 Sep 93.

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1. Policy. Employees shall be adequately protected from the health hazards associated with asbestos. Asbestos-free material shall be used unless there is no substitute or the substitute is more hazardous.

2. Purpose. This regulation establishes safe and proper operational procedures and responsibilities for the handling, removal, and disposal of materials containing asbestos in order to ensure compliance with Federal, Military, State, and local laws, regulations, and standards.

3. Responsibilities.

a. Depot Commander will:

(1) Ensure an effective Asbestos Management Program and Plan is established and maintained.

(2) Ensure that there are sufficient personnel and financial support to effectively and efficiently perform all duties required by the Asbestos Management Program.

(3) Ensure that all personnel receive appropriate training and medical evaluations prior to becoming involved with the Asbestos Management Program.

(4) Establish a Depot Asbestos Management Team consisting of representatives from: D/Public Works, Engineering Division, Utilities, Buildings and Grounds Division, and Plant Maintenance Division; D/Industrial Risk Management, Environmental Management Division (EMD), Asbestos Program Manager, Safety Division; D/ Personnel; Legal Office; Public Affairs

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Office; the Union; Management Employee Relations; and the D/US Army Health Clinic-Tobyhanna and Health Clinic Industrial Hygiene Office. The C/EMD shall chair the team.

b. Depot Asbestos Management Team will:

(1) Review, coordinate, and execute the depot Asbestos Operations and Management (O&M) Plan. The plan will include, at a minimum:

(a) A complete review of Asbestos (O&M) Plan schedules, design plans, and specifications to identify facilities scheduled for repair, renovation, or demolition.

(b) Conduct a depot-wide survey of all facilities to determine the location, extent, and condition of all asbestos-containing material. This will include assessing the potential for environmental release, human health implications, and appropriate control measures.

(2) The team will meet on a quarterly basis or as required.

c. Directorate of Industrial Risk Management (D/RK) will:

(1) Provide supervision and input as necessary to assure an effective program is maintained.

(2) Ensure the Asbestos Management Team coordinates and executes the Asbestos O&M Plan.

d. Directorate of Public Works (D/PW) will:

(1) Conduct asbestos abatement activities either by contract or in-house personnel. For asbestos abatement activities conducted by in-house personnel, work records shall be provided to EMD annually. Ensure the Asbestos Program Manager, Safety Division, and Health Clinic Industrial Hygiene Office review all abatement activities.

(2) Ensure the asbestos O&M Plan is considered in the Installation Master Plan.

(3) Ensure that asbestos abatement procedures are integrated into work description, assignment scheduling, and supply and hour estimation for those tasks, which involve Asbestos-Containing Material (ACM).

(4) Coordinate with the Asbestos Management Team and notify the Industrial Hygienist, EMD, Union Office, and Safety Officer 20 days prior to the removal/repair of any ACM. Re-notification is required if the start date of the demolition or renovation changes. In the case of an emergency, notification will be made as soon as possible.

(5) Incorporate into all appropriate project specifications specific provisions requiring the contractor to comply with all Federal, State, and local asbestos control regulations including notification procedures. These project specifications shall be coordinated with the EMD,

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Industrial Hygienist, the Safety Division and D/Contracting. Design specifications for new construction will incorporate the use of non-asbestos materials with the exception of when an acceptable equal cannot be found. The specifications shall state that any ACM work done under contract, which is not adequately performed by the contractor and presents a threat to the health and welfare of employees, shall be cause for immediate stoppage of work. Should asbestos air sampling be required by contract, a copy of the results shall be provided to the Asbestos Program Manager, Industrial Hygienist, and the Safety Division for review and approval prior to reopening the work area. The Contracting Officer's Representative (COR) shall enforce the contract requirement for the abatement contractor to furnish a copy of all waste manifests. A copy of these manifests shall be forwarded to the Asbestos Program Manager.

(6) The COR for asbestos projects shall be trained in asbestos removal requirements and shall familiarize themselves with all applicable regulations. Inspection procedures for projects involving asbestos shall specifically incorporate required Federal, State, and local asbestos control regulations. Discrepancies, deficiencies, or lack of performance shall be immediately reported to the Contracting Officer, Safety Division, Health Clinic Industrial Hygiene Office, and the EMD, as appropriate. Lack of proper performance by the contractor, which presents a threat to the health, and welfare of employees shall be cause for immediate stoppage of work. The contractor shall be given the opportunity to correct any cited deficiencies, however, continued lack of compliance with specification requirements by the contractor may be cause for default as determined by the Contracting Officer.

(7) Ensure all personnel performing asbestos COR and abatement activities are adequately trained, wear protective clothing and equipment while performing asbestos abatement activities, and are in the asbestos medical surveillance program.

(8) Have a D/PW representative, with a current asbestos handler license, respond to emergency asbestos incidents and provide abatement work as required.

(9) Provide design plans, contractor specifications, and/or contracts for all asbestos removal, demolition, and repair operations to EMD, Safety Division, and Health Clinic Industrial Hygiene Office for review.

(10) Prior to starting each abatement action, AMSEL-TY Form 3200 Asbestos Abatement Checklist (Appendix C) shall be completed by the proponent of the work and verified by either the Asbestos Program Manager, Industrial Hygienist, or Safety Officer. This document shall be submitted to the Asbestos Program Manager and placed in the Asbestos Program files.

(11) Ensure all asbestos abatement projects are submitted to EMD for review and a Record of Environmental Consideration is approved and signed by the Environmental Coordinator.

e. EMD will:

(1) Conduct oversight of asbestos projects to ensure compliance with applicable standards/regulations.

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- (2) Provide technical assistance to personnel involved in asbestos activities.
- (3) Serve as the liaison office between Tobyhanna Army Depot (TYAD) and all regulatory agencies, except Department of Labor (DOL) and Occupational Safety and Health Administration (OSHA) for asbestos activities.
- (4) Review all design plans, contractor specifications, and/or contracts for work which may require asbestos removal, demolition, or repair operations.
- (5) Review the Asbestos Management Program annually, or more as appropriate to determine compliance with the latest Federal, State and local regulations/standards and recommend changes as necessary.
- (6) Assign an Asbestos Program Manager. The EMD is the primary organization responsible for the Asbestos Management Program.
- (7) Maintain manifests, transactions, reports, etc., which relate to disposal of Regulated Asbestos-Containing Material (RACM) waste.
- (8) Maintain all documents, files, and records regarding the asbestos program indefinitely.
- (9) Assist in providing annual training sessions for personnel involved in asbestos related operations.
- (10) Acquire and submit bulk samples to an approved contract laboratory for analysis of asbestos content.
- (11) Conduct a depot wide survey of all facilities to determine the location, extent, and condition of all asbestos (excluding stock asbestos containing material). All facility inspectors shall meet the training requirements of Asbestos Hazard Emergency Response Act (AHERA). Conduct an annual re-inspection of all facilities/buildings containing ACM to ensure all ACM is intact.
- (12) Maintain records and drawings of structures identifying the location of ACM (i.e., pipe and pipe insulation, wallboard, roofing and siding, boilers, and hot water tanks).
- (13) Prepare a depot-wide asbestos O&M plan designed to monitor the condition of asbestos and minimize environmental release and human exposure.
- (14) When required, conduct air sampling prior to, during, and after in-house asbestos work is performed to determine ambient air asbestos fiber concentrations and employee exposure levels. Samples shall be submitted to an approved laboratory for analysis.
- (15) Respond to emergency asbestos incidents and provide technical assistance as required. Coordinate with Safety Division, Health Clinic Industrial Hygiene Office, and D/PW as appropriate.

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(16) Ensure the Pennsylvania Department of Environmental Protection, Bureau of Air Quality Control, is informed in writing prior to any in-house RACM removal activities as required by National Emission Standards for Hazardous Air Pollutants for ACM.

(17) Notify the cognizant Contracting Officer of any regulatory violation committed by the abatement contractor or the on site air monitor.

(18) Notify D/PW of any changes in master planning documents and records to real property that contains asbestos as identified in the inventory.

f. EMD Asbestos Program Manager will:

- (1) Provide input to the budgeting process to assure sufficient funding for the program.
- (2) Ensure all asbestos documents and records are maintained indefinitely.

g. Directorate Production Management, Tool Management Division, Central Tool Crib will:

- (1) Serve as the issue authority for respirators and filters.
- (2) Maintain an inventory of supplies and equipment and establish reorder levels sufficient to ensure an adequate stock of these items. All supplies will be stored in a clean and sanitary condition.

h. Safety Division, Safety Officer will:

- (1) Assist in providing annual training sessions for personnel involved in asbestos related operations.
- (2) Conduct periodic surveys of asbestos projects to determine compliance with applicable standards/regulations.
- (3) Review design plans, contractor specifications, and/or contracts for all asbestos removal, demolition, and repair operations.
- (4) Review the Asbestos Management Program annually, or more frequently, as appropriate, to determine compliance with the latest Federal regulations/standards and recommend changes as necessary.
- (5) Serve as liaison office between TYAD and the DOL, OSHA for all asbestos activities.
- (6) Ensure all persons involved in the asbestos program are enrolled in Respirator Fit Test Program and that Fit Tests are conducted every six months in accordance with 29 Code of Federal Regulation (CFR) 1910.1001 and 1910.134.

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(7) Maintain any records/files on the asbestos management program indefinitely.

(8) Respond to emergency asbestos incidents and provide technical assistance as required. Coordinate with EMD, Industrial Hygienist, and D/PW as appropriate.

i. U.S. Army Health Clinic Industrial Hygienist will:

(1) Assist in providing annual training sessions for personnel involved in asbestos related operations.

(2) As required, conduct asbestos worker and area air sampling during in-house performance of asbestos work to determine ambient air asbestos levels. Samples shall be submitted to an approved laboratory for analysis.

(3) Provide technical consultative services on work practices, engineering controls and personal protective equipment.

(4) As required, conduct periodic surveys of in-house asbestos projects to determine compliance with applicable standards/regulations.

(5) Review design plans, contractor specifications, and/or contracts for all asbestos removal, demolition, and repair operations.

(6) Review the Asbestos Management Program annually, or as appropriate to determine compliance with the latest Federal, State, and local standards/regulations and recommend changes as necessary.

(7) Maintain any records/files on asbestos indefinitely.

(8) Respond to emergency asbestos incidents and provide air monitoring and technical assistance as required. Coordinate with EMD, Safety Division, and D/PW as appropriate.

j. Directorate of Personnel will:

(1) Assist supervisors to negotiate any personnel problems resulting from this program.

(2) Ensure the U.S. Army Health Clinic is notified prior to placement of any personnel (new hires or internal transfers) in positions that expose, or have the potential to expose, employees to asbestos.

(3) Assist supervisors in taking appropriate action when employees fail to comply with this program.

k. The Directorate of Business Management will:

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(1) Be the primary organization responsible for ensuring the depot meets its asbestos training requirements. Coordinate asbestos training with EMD, Health Clinic Industrial Hygiene Office, and the Safety Division.

l. U.S. Army Health Clinic will:

(1) Conduct medical surveillance on employees assigned to jobs involving potential exposures that equal or exceed the action level. The employees shall receive pre-placement, annual, and termination examinations. The content of the medical examination shall be in accordance with 40 CFR 763.121.

(2) Maintain medical records indefinitely.

m. Director of Contracting will:

(1) For projects involving RACM for which the requiring activity has included the Corps of Engineers (COE) technical specification 13280 "Removal and Disposal of Asbestos Materials," edited for local application, obtain pre-award qualification information as stated in section 13280 from the prospective awardee. Submit the vendor's qualification information in compliance with Federal, State, and local regulators, to the COR for review and approval prior to award.

(2) If project specifications are written by requisitioners to preclude the use of asbestos, then Contracting will forward any information received that a substitute material cannot be found to the Asbestos Program Manager and requisitioner for coordination and disposition instructions.

(3) Maintain any contract files involving asbestos indefinitely.

n. Supervisors will:

(1) Implement procedures within each area to ensure that an adequate Asbestos Management Program is established and maintained.

(2) Input the work scheduling process to ensure that proper asbestos removal/handling actions are programmed into all applicable in-house projects.

(3) Provide input to the Safety Division, EMD, and the Industrial Hygienist on the effectiveness of the program, compliance with appropriate regulations and suggestions for improvement.

(4) Ensure proper training and medical monitoring is provided for all new personnel who fall under the Asbestos Management Program. Maintain a complete and accurate record of training for each employee indefinitely.

(5) Take appropriate action when employees fail to comply with the program.

(6) Resolve any personnel problems resulting from this program.

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(7) Notify the EMD, Safety Division, or the Industrial Hygienist regarding reports of asbestos incidents.

(8) Indicate on all Requests for Personnel Actions, Standard Form 52-B, whether, as a result of their position, new employees will be exposed or potentially exposed to asbestos and are therefore required to participate in the Asbestos Management Program.

(9) Obtain and maintain adequate levels of equipment and supplies necessary for in-house asbestos management.

(10) Ensure that necessary personal protective equipment such as respiratory devices, clothing, hand protection, and other appropriate gear are properly used and maintained.

(11) Coordinate RACM disposal operations with the EMD.

(12) Prior to starting each abatement action, complete the Asbestos Abatement Checklist (Appendix C, AMSEL-TY Form 3200) and submit to the Asbestos Program Manager, Industrial Hygienist, and Safety Officer for approval.

o. Employees will:

(1) Utilize procedures outlined in this regulation and as directed by supervisors to ensure compliance with all Federal, State, Military, and local regulations.

(2) When encountering unidentified asbestos on projects, or damaged ACM in the course of their duties, except in specific emergency situations, immediately report discrepancies to their supervisor.

(3) Report information regarding any asbestos situation to their immediate supervisor.

4. Background. Asbestos is a general term used to describe several fibrous mineral silicates (chrysotile, amosite, crocidolite, anthophyllite, tremolite, and actinolite). Major uses of asbestos include cement products, floor tiles, high temperature insulation, asbestos cloth, friction materials, gasket materials, and various other products. Inhalation and/or ingestion of asbestos fibers can produce asbestosis, lung cancer, mesothelioma, and cancer of the gastrointestinal tract. A latency period of 20-40 years between the first exposure to asbestos and the appearance of a malignancy is noted frequently. The fabrication, installation, repair, removal, or demolition of ACM can generate concentrations of airborne asbestos fibers in excess of the Permissible Exposure Limit (PEL).

5. PEL Set by OSHA.

a. PEL - No employee shall be exposed to an airborne concentration of asbestos fibers in excess of 0.1 fibers per cubic centimeter (0.1 f/cc) of air, as an 8 hour time-weighted average (TWA).

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b. **Excursion Limit** - No employee shall be exposed to an airborne concentration of asbestos fibers in excess of 1.0 fiber per cubic centimeter of air (1 f/cc) as averaged over a sampling period of thirty minutes.

c. **Action Level** - Airborne concentration of asbestos fibers equal to or greater than 0.1 f/cc of air, based on an eight hour TWA.

6. **Emergencies**. Procedures outlined in this regulation are for normally scheduled work. In case of emergencies and for the protection of life and property, etc., all reasonable precautions should be taken. Suspension of any of these requirements shall be at the discretion of the senior supervisor present and only implemented under extreme circumstances. A written report of any emergency condition which necessitates the relaxation of any procedures delineated herein along with the names of personnel involved or exposed, shall be forwarded to the EMD within 72 hours of the incident. The EMD shall, in turn, forward this information to the U.S. Army Health Clinic. Prior to reopening the work area, the Industrial Hygienist, EMD, and Safety Division shall be consulted and air sampling may be conducted by EMD or Health Clinic Industrial Hygiene Office.

7. **Disposal**. After asbestos waste material is properly double-bagged and labeled, it shall be disposed of in accordance with applicable regulations (refer to Appendix E, Section 1c). In summary, no visible emissions of ACM particles shall be discharged into the air during handling and transport of ACM waste; all ACM waste shall be adequately wet and sealed in a leak-tight container while wet; vehicles that transport ACM shall be marked, and waste shipment records are required to be maintained. Asbestos waste shall be transported to an approved sanitary landfill by a waste hauler possessing a valid asbestos waste hauler permit. A copy of the waste manifest must be sent to the EMD office within 30 days of transportation from TYAD.

8. **Requirements**.

a. **Training**: Prior to performing asbestos inventory, bulk sampling, air sampling, contractor/supervisor, worker, and management planner activities personnel shall be appropriately trained according to OSHA and AHERA standards. Refresher courses, as appropriate, will be taken. A complete and accurate record of training for each employee shall be maintained indefinitely by the supervisor. Training will be obtained and maintained by those addressed in paragraph 8.

b. **General**:

(1) Material containing asbestos shall be removed and/or repaired when there is a threat for human or environmental exposure. The most expeditious manner that provides the desired results and at the same time prevents, to the maximum extent, asbestos from becoming airborne shall be used.

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(2) For in-house work the Industrial Hygienist, Safety Division, and EMD shall be notified seven days prior to the planned removal or repair of materials containing asbestos. Notify these offices as soon as possible when there is an unplanned release of asbestos.

(3) Removal and repair of ACM shall be accomplished by authorized trained personnel. Personnel not trained in safe handling procedures shall not be allowed to handle ACM.

(4) Compressed air shall never be applied to ACM, nor will duct tape ever be applied to ACM.

(5) Warning signs shall be posted at all approaches to the regulated area (Appendix A-1). Warning labels shall be placed on all ACM waste containers (Appendix A-2). These labels can be obtained from the Asbestos Program Manager, EMD.

(6) All electrical equipment and tools used within the regulated area shall be operated using Ground Fault Circuit Interrupter protection. All equipment and tools shall be thoroughly decontaminated before removing them from the regulated area. If equipment or tools can not be decontaminated they shall be disposed of as asbestos-containing waste.

(7) Eating, smoking, drinking, chewing tobacco or gum, or the application of cosmetics shall not be permitted in the regulated area.

(8) Whenever feasible, and regardless of the abatement method to be used (e.g., removal, enclosure, use of glove bags), wet methods (wetting agent or amended water) shall be used during maintenance and renovation activities that involve disturbing ACM.

(9) Procedures on how to remove ACM in facilities and vehicle brakes, plus inspection of bonded materials can be obtained from EMD, Safety Division, or Health Clinic Industrial Hygiene Office.

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APPENDIX A

WARNING SIGN

DANGER

ASBESTOS

CANCER AND LUNG DISEASE HAZARD

AUTHORIZED PERSONNEL ONLY

RESPIRATORS AND PROTECTIVE

CLOTHING

ARE REQUIRED IN THIS AREA

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WARNING LABEL

CONTAINS ASBESTOS FIBERS
AVOID CREATING DUST
CANCER AND LUNG DISEASE HAZARD
AVOID BREATHING AIRBORNE ASBESTOS FIBERS P

LOCATION LABEL

ASBESTOS-CONTAINING WASTE MATERIAL	
DATE	
NAME OF WASTE GENERATOR	
LOCATION OF WASTE GENERATION	

ASBESTOS WASTE GENERATED FROM:	
<input type="checkbox"/> FABRICATION	<input type="checkbox"/> RENOVATION ACTIVITY
<input type="checkbox"/> DEMOLITION	
ASBESTOS-CONTAINING WASTE MATERIAL	

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APPENDIX B

ASBESTOS CEMENT PIPE AND CATEGORY I AND CATEGORY II
NON-FRIABLE ASBESTOS-CONTAINING MATERIAL (ACM)

1. Asbestos Cement (A/C) Pipe. The cutting, machining, or tapping of A/C pipe is prohibited unless the tools are fitted with local exhaust shrouds connected to a High Efficiency Particulate Air (HEPA) vacuum. Personnel involved in these operations shall wash their hands before eating, smoking, drinking, chewing tobacco or gum, or the application of cosmetics.

2. Category I Non-friable ACM.

a. These materials are not an asbestos hazard unless they are in a friable condition and/or become friable during removal or disposal operations. The sanding, grinding, chipping, and scraping of these materials are prohibited. Drilling and/or cutting of this material to facilitate removal shall only be performed with tools fitted with local exhaust shrouds connected to a HEPA vacuum. Personnel that handle these materials shall wash their hands before eating, smoking, drinking, chewing tobacco or gum, or the application of cosmetics.

b. Notification, special removal procedures, and waste disposal activities may not apply to non-friable ACM that is not Regulated Asbestos-Containing Material (RACM). As long as the non-friable ACM that is not RACM does not become crumbled, pulverized, or reduced to powder during any one of these activities, non-friable ACM can be removed and disposed of as regular building material. Refer to paragraph 7 of this regulation for a definition of Category I non-friable ACM. The Environmental Management Division must be notified prior to being removed or disposed of in this fashion.

3. Category II Non-friable ACM. These materials are not an asbestos hazard unless they are in a friable condition and/or become friable during removal and disposal operations. The sanding, grinding, chipping, and scraping of the materials are prohibited. Drilling and/or cutting of this material to facilitate removal shall only be performed with tools fitted with local exhaust shrouds connected to a HEPA vacuum. Personnel that handle these materials shall wash their hands before eating, smoking, drinking, chewing tobacco or gum, or the application of cosmetics. Refer to paragraph 7 of this regulation for a definition of Category II Non-friable ACM.

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APPENDIX C

ASBESTOS ABATEMENT CHECKLIST

Building: Office/Area:

Description of Project:

Following Actions Will be Taken by Abatement Personnel:

- ☐ Abatement workers performing function are medically certified
- ☐ Proper personal protective equipment is utilized correctly
- ☐ Proper abatement technique is applied (i.e., glove bag, encapsulation, enclosure, etc.)
- ☐ Appropriate abatement equipment is used
- ☐ Appropriate abatement material is used
- ☐ Asbestos warning signs are placed to demarcate the regulated area
- ☐ Asbestos is properly packaged and labeled
- ☐ Asbestos waste material is properly disposed of
- ☐ See comments attached

Signatures:

Approval
Yes No

Date

Abatement Supervisor

Asbestos Program Manager

Industrial Hygienist

Safety Officer

AMSEL-TY Form 3200,

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APPENDIX D

DEFINITIONS

Abatement: various processes used to control the release of fibers from asbestos-containing material (ACM) in buildings. There are three alternatives for asbestos abatement. They are removal, encapsulation, or enclosure of the ACM.

Amended Water: water containing a wetting agent or surfactant.

Approved Laboratory: a laboratory participating in the U.S. Environmental Protection Agency bulk asbestos sample quality assurance program. All samples shall be read by a certified microscopist.

Area Monitoring: sampling for asbestos fiber concentrations within and outside the asbestos control area. These samples are representative of the airborne concentrations of asbestos fibers which may reach the breathing zone.

ACM: any material composed of asbestos of any type and in an amount greater than 1.0 percent by weight.

Asbestos Control Area: an area where an asbestos removal operation is being performed which is isolated by physical boundaries to prevent the spread of asbestos dust, fibers, or debris.

Authorized person: any person authorized by the government and required by work duties to be present in regulated areas.

Breathing Zone: zone of the ambient environment in which a person performs the normal respiratory function.

Category I Non-friable ACM: asbestos-containing packings, gaskets, resilient floor covering, and asphalt roofing products containing more than 1% asbestos, that when dry cannot be crumbled, pulverized, or reduced to powder by hand pressure (see Appendix B).

Category II Non-friable ACM: any material, excluding category I non-friable ACM, containing more than 1 percent asbestos, that when dry cannot be crumbled, pulverized, or reduced to powder by hand pressure (see Appendix B).

Clean Room: an uncontaminated room within the decontamination area having facilities for the storage of employees' street clothing and uncontaminated materials and equipment.

Competent Person: one who is capable of identifying existing asbestos hazards in the work place and who has the knowledge and authority to take prompt corrective measures to eliminate them. This person must also have the proper training required by Occupational Safety and Health Administration.

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Decontamination Area: an enclosed area adjacent and connected to the regulated area and consisting of an equipment room, shower area, and clean room. The decontamination area is used for the decontamination of workers, materials, and equipment.

Demolition: the wrecking or taking out of any load-supporting structural member of a facility together with any related handling operations or the intentional burning of any facility.

Disposal Bag: a six mil thick (minimum) leak-tight plastic bag used for transporting asbestos-containing/contaminated wastes from the work area to the disposal site. Each bag shall be labeled with the appropriate warning label and a label stating the date and location (Bldg. and room number) the waste was generated from, and the name of the waste generator (Tobyhanna Army Depot).

Emergency Project: a project involving the removal, enclosure, or encapsulation of friable ACM that was not planned but results from sudden unexpected events.

Employee Exposure: an employee who has been exposed to airborne asbestos concentrations greater than the personal exposure limit without wearing the proper protective equipment.

Encapsulation: the treatment of ACM with a material that surrounds or embeds asbestos fibers in an adhesive matrix to prevent the release of fibers, as the encapsulant creates a membrane over the surface (*bridging encapsulate*) or penetrates the material and binds its components together (*penetrating encapsulant*). Encapsulant shall be of contrasting color to the background.

Enclosure: an airtight impermeable, permanent barrier around ACM to prevent the release of asbestos fibers into the air.

Equipment Room (Change Room): a contaminated room located within the decontamination area that is supplied with impermeable bags or containers for the disposal of contaminated protective clothing and equipment.

Fiber: a particulate form of asbestos, five micrometers or longer, with a length-to-diameter ratio of at least three to one.

Friable Asbestos Material: any material containing more than 1 percent asbestos which may be crumbled, pulverized, or reduced to powder by hand pressure when dry.

High Efficiency Particulate Air (HEPA) filter: a filter capable of trapping and retaining at least 99.97 percent of all mono-dispersed particles of 0.3 micrometers in diameter or larger.

Non-friable ACM: any material containing more than 1 percent asbestos, as determined using the method specified in Appendix A, subpart F, 40 Code of Federal Regulation Part 763, Section I, Polarized Light Microscopy, that, when dry, cannot be crumbled, pulverized, or reduced to powder by hand pressure.

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Occupied Area: any areas adjacent to the asbestos work area that are occupied by unprotected employees during any time abatement activities are performed.

Personal Monitoring: sampling for asbestos fiber concentrations within the breathing zone of an employee.

Regulated Area: an area established by the competent person supervising the removal action to demarcate areas where airborne concentrations of asbestos can reasonably be expected to exceed the permissible exposure limit, excursion limit, and/or action level.

Regulated Asbestos-Containing Material (RACM):

- (a) Friable asbestos material
- (b) Category I non-friable ACM that has become friable
- (c) Category I non-friable ACM that will be or has been subjected to sanding, grinding, cutting, or abrading, or
- (d) Category II non-friable ACM that has a high probability of becoming or has become crumbled, pulverized or reduced to powder by the forces expected to act on the material in the course of demolition or renovation operations.

Removal: the taking out or stripping of any RACM.

Renovation (as it relates to the Asbestos Management Program): the modifying of any existing structure or portion thereof, where exposure to airborne asbestos may result.

Repair (as it relates to the Asbestos Management Program): overhauling, rebuilding, reconstructing or reconditioning of structures or substrates where RACM is present.

Shower Room: a room within the decontamination area used to wash off asbestos fibers from the workers and from their respiratory protection.

Wet Cleaning: the process of eliminating asbestos contamination from building surfaces, equipment, and other objects by using cloths, mops, or other cleaning materials which have been dampened with amended water, and by afterwards disposing of these cleaning tools as asbestos contaminated wastes.

Work Areas: an asbestos control area consisting of designated rooms, spaces or areas of the project in which asbestos abatement actions are to be undertaken or which may be contaminated as a result of such abatement actions. A contained work area is a work area which has been sealed, plastic sheeting barriers erected and equipped with a decontamination area for personnel and equipment. A non-contained work area is an isolated or controlled-access work area that has no plastic sheeting or other containment barriers erected.

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APPENDIX E
REFERENCES

1. Federal Standards/Regulations.

- a. 29 Code of Federal Regulation (CFR) Parts 1910.1001 and 1926.58, Occupational Safety and Health Administration (OSHA) General Industry and Construction Asbestos Standards.
- b. 29 CFR Part 1910.34 OSHA Respiratory Protection Standards.
- c. 40 CFR Part 61, Subpart M and A, Environmental Protection Agency (EPA) Hazardous Air Pollutants Regulation.
- d. 40 CFR Part 763, EPA Asbestos Abatement Projects; Worker Protection; Final Rule.
- e. 40 CFR Part 763, EPA Asbestos-Containing Materials in Schools; Final Rule and Notice.
- f. Asbestos National Emission Standards for Hazardous Air Pollutants revised.
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- b. Asbestos: An Information Resource, USDHHS-PHS-NIH-NCI 81-1681.
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